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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/298,798	04/23/1999	YU-CHEUN JOU	QCPA990343	2454

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Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER

ODLAND, DAVID E

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 09/04/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/298,798

Applicant(s)

JOU, YU-CHEUN

Examiner

David Odland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The following is a response to the communication filed on 06/12/2003.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6, 12-17 and 21-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Bonnerot (USPN 4,281,408), hereafter referred to as Bonnerot.

Referring to claims 1, 12 and 21, Bonnerot discloses a multi-carrier base station operating within a predetermined set of frequencies wherein data components of forward link data are transmitted simultaneously on a plurality of frequency bands (a transmission system wherein data is transmitted on a plurality of frequency bands (see column 3 lines 44-63)), said base station comprising a first transmission subsystem for transmitting a sync channel message on a single carrier frequency of said predetermined set of frequencies (the transmission system transmits a pilot signal on the center frequency (see column 3 lines 44-63)) and at least one additional transmission subsystem for transmitting remaining components of said forward link data on another carrier frequency of said predetermined set of frequencies (other speech signals are transmitted at frequencies that deviate 10 Hz from the center frequency occupied by the pilot signal (see column 3 lines 44-64)).

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Referring to claims 2, 13 and 22, Bonnerot discloses the system as discussed above. Furthermore, Bonnerot discloses that the sync channel message indicates the center frequency of at least one multi carrier system in said predetermined set of frequencies (the pilot channel is located on the center frequency and therefore inherently indicated the center frequency (see column 3 lines 44-63)).

Referring to claims 3, 14 and 23, Bonnerot discloses the system as discussed above. Furthermore, Bonnerot discloses that the sync channel message indicates the frequency of a single carrier system in said predetermined set of frequencies (the pilot channel is located on the center frequency and therefore inherently indicated the center frequency (see column 3 lines 44-63)).

Referring to claims 4, 15 and 24, Bonnerot discloses the system as discussed above. Furthermore, Bonnerot discloses that the sync channel message indicates the frequency of a single carrier system in said predetermined set of frequencies (the pilot channel is located on only the center frequency and therefore inherently indicated the single carrier system for the pilot signal (see column 3 lines 44-63)).

Referring to claims 5, 16 and 25, Bonnerot discloses the system as discussed above. Furthermore, Bonnerot discloses that the sync channel message is transmitted on one of a set of a preferred frequency channels wherein the number of frequencies in said set of preferred frequency channels is less number of frequencies in said predetermined set of frequencies (the pilot signal is transmitted on a particular frequency, namely 84.140 kHz, which is one of a plurality of a primary FDM group that operates in the range of 60-108 kHz (see column 3 lines 44-64)).

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Referring to claims 6, 17 and 26, Bonnerot discloses the system as discussed above.

Furthermore, Bonnerot discloses that the set of predetermined frequencies are the set of frequency bands in a personal communications system block of frequencies (the transmitters are used in conjunction with receivers to make telephony calls and therefore used by people thereby making the frequencies a set of 'personal communications system' frequencies (see column 1 lines 10-15 and 33-39 and column 3 lines 44-63)).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7-11, 18-20 and 27-31, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonnerot.

Referring to claims 7, 18 and 27, Bonnerot discloses the system discussed above.

Bonnerot does not disclose that the preferred set of channels is 75,150 and 225. However, it would have been obvious to one skilled in the art at the time of the invention to utilize these particular channels because doing so is merely a matter of design choice.

Referring to claims 8, 19 and 28, Bonnerot discloses the system as discussed above in the rejection of claims 1, 12 and 21. Although Bonnerot discloses components of the transmission side of system, Bonnerot does not disclose the components of the receiver side of the system, which would be used to receive the data transmitted by transmission system. Since the

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components of claims 8, 19 and 28 merely recite the receiver side components that would correspond to transmission side components, in the system of Bonnerot, it would have been obvious to one skilled in the art at the time of the invention to make a receiver that corresponds to the transmission components of the transmission system disclosed in Bonnerot because doing so would provide a method of communicating with such a transmission system, thereby allowing communications to take place.

Referring to claims 9, 20 and 29, Bonnerot discloses the system as discussed above. Furthermore, Bonnerot discloses that the system operates in a multi carrier system and directs the receiver to tune to a first frequency and to tune to at least one additional frequency when said mobile station operates in a multicarrier mode (the pilot signal is transmitted at one frequency and the other speech channels at other frequencies, therefore the receiver side would tune to the frequencies to recover the signals (see column 3 lines 44-46)).

Referring to claims 10 and 30, Bonnerot discloses the system as discussed above. Furthermore, Bonnerot discloses that the control processor directs said first receiver subsystem to tune to one of a predetermined set of preferred frequencies (the transmitter transmits using a primary FDM group operating in the range of 60-108 kHz, therefore the receiver would have to tune to these frequencies in order to recover the transmitted signals (see column 3 lines 44-63)).

Referring to claims 11 and 31, Bonnerot discloses the system as discussed above. Furthermore, Bonnerot discloses that the systems use frequency bands within a personal communications system set of frequencies (the transmitters are used in conjunction with receivers to make telephony calls and therefore used by people thereby making the frequencies a set of 'personal communications system' frequencies (see column 1 lines 10-15 and 33-39 and

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column 3 lines 44-63)). Bonnerot does not disclose that the preferred set of channels is 75,150 and 225. However, it would have been obvious to one skilled in the art at the time of the invention to utilize these particular channels because doing so is merely a matter of design choice.

Response to Arguments

3. Applicant's arguments filed 06/12/2003 have been fully considered but they are not persuasive.

On page 3, regarding independent claims 1,8,12,19,21 and 28, the Applicant argues that the rejections are improper because a pilot signal, as disclosed in the Bonnerot reference, is not a sync signal, as recited in the claim. The Examiner respectfully disagrees. The pilot signal is used in Bonnerot to determine and process the 12 speech signals of the FDM band in order to perform or coordinate level control management functions (see column 3 lines 44-67 and column 1). Since the system uses the pilot signal to 'sync' or coordinate the process of determining and processing the speech signals for level management, the pilot signal is a 'sync' signal. Furthermore, the Applicant relies on the definition of the 'sync' channel by referred to the specification. However, the claims do not recite such limitations of the 'sync' signal. The Applicant is reminded that although the claims are read in light of the specification, the Examiner must interpret the claims in the broadest sense and not interpret limitations described in the specification that are not recited in the claims, therefore the term 'sync' is not limited to the definition given in the specification. Furthermore, the Applicant argues that Bonnerot does not disclose more than one system wherein each subsystem transmits different components. The Examiner respectfully disagrees. The claims do not recite transmitting 'components'.

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Furthermore, the system of Bonnerot transmits and receives signals of various frequencies (hence, an FDM system). Transmitting and receiving these signals inherently involves subsystems that produce and collect information on those frequencies (i.e. the frequency transmitters, rake receivers, different power generators, etc.). More specifically, the system of Bonnerot compiles a signal made up of 12 speech signals, a pilot signal and a plurality of signaling signals that are all transmitted and received on separate frequencies (see columns 1 and 2). Bonnerot must inherently comprise more than one subsystem in order to transmit and receive such a compilation of signals. Therefore, Bonnerot anticipates the claimed invention.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Odland, who can be reached at (703) 305-3231 on Monday – Friday during the hours of 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached at (703) 305-4744. The fax number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, who can be reached at (703) 305-4750.

deo

September 2, 2003



HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600